



FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS

(Alternative Form for Single Chamber, Completely Shop-Fabricated Vessels Only)
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

Form 2129B

1. Manufactured and certified by MINNESOTA VALLEY ENGINEERING, 407 7th St. NW; NEW PRAGUE MN. 56071
(Name and address of manufacturer)

2. Manufactured for _____
(Name and address of purchaser)

3. Location of installation _____
(Name and address)

4. Type VCS 1500 1599 NA D20779M 11102 1986
(Horiz. or Vert. Tank) (Mfg'r's Serial No.) (CRN) (Drawing No.) (Nat'l. Bd. No.) (Year Built)

5. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction, and workmanship conform to ASME Rules, Section VIII, Division 1 1983
to W-85 NA LOW TMP. SVC. UW2B, UHA51
Addenda (Date) Code Case Nos. Special Service per UG-120(d)

6. Shell: SA240-304 .438 0 5'-0 9'-2
Mat'l. (Spec. No., Grade) Nom. Thk. (in.) Corr. Allow. (in.) Diam. I.D. (ft. & in.) Length (overall) (ft. & in.)

7. Seams: WLD. DBL. BUTT FULL 100% NA NA WLD. SGL. BUTT PART. 1
Long. (Welded, Double, RT (Spot or Full) EFF % HT Temp (F) Time (hr) Girth (Welded, Double, RT (Spot, Partial, or Full) No. of Courses Single, Lap, Butt)

8. Heads: (a) Mat'l. SA240-304 (b) Mat'l. SA240-304
(Spec. No., Grade) (Spec. No., Grade)

	Location (Top/Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	TOP	.435	0	NA	NA	2:1	NA	NA	NA	CONCAVE
(b)	BT'M	.435	0	NA	NA	2:1	NA	NA	NA	CONCAVE

If removable, bolts used (describe other fastenings) NONE
(Mat'l. Spec. No., Gr. Size, No.)

9. MAWP 250 psi at max. temp. 100 °F
Min. temp. (when less than -20° F) 320 °F. Hydro., pneu., or comb. test pressure 408 psi

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diameter or Size	Type	Mat'l.	Nom. Thk.	Reinforcement Mtl.	How Attached	Location
BF, TF	4	1.660D	W.E.	SA312-TP304	.158	NA	WELDED	NA
PF, V								
PV, GU	2	1.000D	W.E.	SA249-TP304	.120	NA	WELDED	NA
FT	1	0.870D	W.E.	SA249-TP304	.120	NA	WELDED	NA
GP, LP	2	0.500D	W.E.	SA249-TP304	.083	NA	WELDED	NA
HYDRO	2	1.560D	CLPG.	SA182-F304	.230	NA	WELDED	NA

11. Supports: Skirt NA Lugs NA Legs NA Other HUB Attached ENDS
(Yes or No) (No.) (No.) (Describe) (Where and How)

12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: NA

Vacuum jacketed vessel for storage of liquid nitrogen, oxygen, or argon. Design pressure is 272.0psi. Inner vessel coded only
Hydro ports are plugged and seal welded.

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1. "U" Certificate of Authorization No. 8377 expires JAN. 15 19 89
Date 4/1/86 Co. name MINNESOTA VALLEY ENG. signed [Signature] Representative

CERTIFICATE OF SHOP INSPECTION

Vessel constructed by MINNESOTA VALLEY ENGINEERING at NEW PRAGUE MINNESOTA 56071
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of MINNESOTA and employed by W. S. B. I. & I. CO. of HARTFORD CT.

have inspected the component described in this Manufacturer's Data Report on APR 1 19 86, and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division 1. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection

Date 4-1-86 Signed [Signature] Commissions NB-8797 MN86-22
(Authorized Inspector) (Nat'l. Board [incl. endorsements], State, Prov. and No.)